(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 24 June 2004 (24.06.2004)

PCT

(10) International Publication Number WO 2004/054256 A1

(51) International Patent Classification7:

H04N 7/01

(21) International Application Number:

PCT/IB2003/005372

(22) International Filing Date:

12 November 2003 (12.11.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 02080239.3

12 December 2002 (12.12.2002) EP

- (71) Applicant (for all designated States except US): KONIN-KLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): RIEMENS, Abraham, K. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). DOMMISSE, Ardjan [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). DE HAAN, Gerard [NL/NL]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).

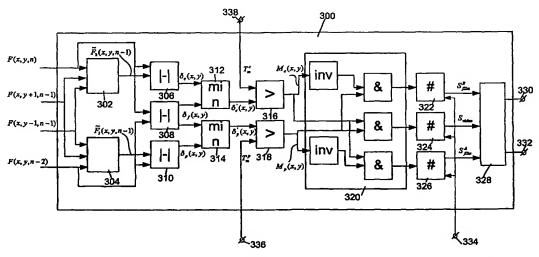
- (74) Agent: GROENENDAAL, Antonius, W., M.; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,

[Continued on next page]

(54) Title: RECOGNIZING FILM AND VIDEO OCCURRING IN PARALLEL IN TELEVISION FIELDS



(57) Abstract: A motion sequence pattern detector (300,301) for detecting presence of film material in a series of consecutive video fields (pp,p,c), is arranged to compute for a first one of the consecutive fields a value of a video motion measure and a value of a film motion measure and to determine the presence of film material on basis of both motion measures. The value of the video motion measure is computed by: establishing a plurality of motion patterns for respective groups of pixels of the first one of the consecutive fields; comparing each of the plurality of motion patterns with a predetermined video motion pattern and conditionally increasing the value of the video motion measure. The value of the film motion measure is computed by comparing each of the plurality of motion patterns with a predetermined film motion pattern and conditionally increasing the value of the film motion measure.



WO 2004/054256 A1



IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.